

# Worksheet

05/15/2020

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Problem quickname: 9505

1)

Solve the equation: Determine the value of the variable. Combine like terms and perform equivalent transformations.

- a)  $-474 + 2 = -2 - 5d$       b)  $-340 + 5q = 10q - 9q$       c)  $377 - 9 = -4 + 4p$   
d)  $-4j + 7 = 2 - 3$       e)  $-2u + 46 = -2 + 4$       f)  $-3 + 2 = 289 - 5j$   
g)  $3r - 4 = -189 + 8r$       h)  $-9c + 2 = -258 + c$       i)  $-6n + 3 = -53 - 4$

2)

Solve the equation: Determine the value of the variable. Combine like terms and perform equivalent transformations.

- a)  $-286 + 2u = -2u - 2$       b)  $-120 + 5 = -4q + 1$   
c)  $-4h + 5h = -136 + 9h$       d)  $248 + 3i = -3i + 14i$   
e)  $6v - 5v = -93 + 4v$       f)  $-6e + 399 = 3e + 3$   
g)  $-9u - 4 = -3 - 244$       h)  $-5s + 3s = -204 + 4s$   
i)  $-5v - 3v = -2v - 108$

3)

Solve the equation: Determine the value of the variable. Combine like terms and perform equivalent transformations.

- a)  $-3u + 275 = -1 - 3$  | rearrange and combine like terms  
 $- \boxed{u} + \boxed{ } = - \boxed{ }$  |  $- \boxed{ }$   
 $- \boxed{u} = - \boxed{ }$  | :  $\boxed{ }$   
 $u = \boxed{ }$
- b)  $1 - 4 = -248 + 7g$  | rearrange and combine like terms  
 $\boxed{ } = \boxed{ } g - \boxed{ }$  |  $+ \boxed{ }$   
 $\boxed{ } = \boxed{ } g - \boxed{ }$  |  $- \boxed{ }$   
 $- \boxed{ } g = - \boxed{ }$  | :  $\boxed{ }$   
 $g = \boxed{ }$
- c)  $-328 + 3j = 2j - 7j$  | rearrange and combine like terms  
 $\boxed{ } j - \boxed{ } = \boxed{ } j$  |  $+ \boxed{ }$   
 $\boxed{ } j = - \boxed{ } j + \boxed{ }$  |  $+ \boxed{ }$   
 $\boxed{ } j = \boxed{ }$  | :  $\boxed{ }$   
 $j = \boxed{ }$

d)  $3t + 5t = 2t + 222$  | rearrange and combine like terms

$$\begin{array}{l} \boxed{t} = \boxed{t} + \boxed{\phantom{0}} \\ \boxed{t} = \boxed{\phantom{0}} \\ t = \boxed{\phantom{0}} \end{array}$$

e)  $-15n - 5 = -415 - 5n$  | rearrange and combine like terms

$$\begin{array}{l} -\boxed{n} - \boxed{\phantom{0}} = -\boxed{n} - \boxed{\phantom{0}} \\ -\boxed{n} = -\boxed{n} - \boxed{\phantom{0}} \\ \boxed{n} = -\boxed{\phantom{0}} \\ n = \boxed{\phantom{0}} \end{array}$$

f)  $335 - 3 = -2b + 6b$  | rearrange and combine like terms

$$\begin{array}{l} \boxed{\phantom{0}} = \boxed{b} \\ \boxed{\phantom{0}} = \boxed{b} - \boxed{\phantom{0}} \\ -\boxed{b} = -\boxed{\phantom{0}} \\ b = \boxed{\phantom{0}} \end{array}$$

g)  $-4k + 3 = -184 - 5$  | rearrange and combine like terms

$$\begin{array}{l} -\boxed{k} + \boxed{\phantom{0}} = -\boxed{\phantom{0}} \\ -\boxed{k} = -\boxed{\phantom{0}} \\ k = \boxed{\phantom{0}} \end{array}$$

h)  $-357 - 5y = -3y - 9y$  | rearrange and combine like terms

$$\begin{array}{l} -\boxed{y} - \boxed{\phantom{0}} = \boxed{y} \\ -\boxed{y} = -\boxed{y} + \boxed{\phantom{0}} \\ \boxed{y} = \boxed{\phantom{0}} \\ y = \boxed{\phantom{0}} \end{array}$$

i)  $-3 + 5m = -263 + 10m$  | rearrange and combine like terms

$$\begin{array}{l} \boxed{m} - \boxed{\phantom{0}} = \boxed{m} - \boxed{\phantom{0}} \\ \boxed{m} = \boxed{m} - \boxed{\phantom{0}} \\ \boxed{m} = -\boxed{\phantom{0}} \\ m = \boxed{\phantom{0}} \end{array}$$

4)

Solve the equation: Determine the value of the variable x. Combine like terms and perform equivalent transformations.

a)  $-2x + 8 - 4 = x - 56$

b)  $7x - 479 - 1 = -2x + 4x$

c)  $-5x - 3x + 5 = -148 + 1$

d)  $6x - 195 + 2 = 3 - 4$

e)  $-154 + 7 - 5 = -5x + 3$

f)  $-10x + 3 + 4x = -189 + 2x$

g)  $-5x + 750 - x = 2x + 2x$

h)  $5x - 5 + 3 = -1 + 139$

i)  $-158 + 2 + 3x = -2x - x$

Good Luck!